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ABSTRACT

To determine whether the creative-adventure playground model functions as an effective extension of the classroom, researchers at Northern Illinois University's Early Childhood Education Research Laboratory studied the effects of playground participation on the development of visual-motor integration in 32 preschool boys and girls aged 3 to 4.5. The children were randomly assigned to control or experimental groups within four preschool classes at the Laboratory. Experimental groups participated in at least 30 minutes of playground experiences twice a week while control groups participated in indoor free play. Results of pre- and post-tests indicated that playground participation clearly helped children improve their visual-motor integration skills. Both boys and girls in the experimental group showed a significant gain in test scores. In the control group, boys showed some gains but girls showed none. The experimental group also became assertive and imaginative, and redesigned the playground environment. Results showed that teachers can use creative-adventure playgrounds to reinforce fundamental learning tasks, because the playgrounds capitalize on children's natural learning, exploratory behavior. The results had implications for preschool programs and indicated that playground participation should be included in curriculum planning. (SB)

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A Playground That Extends the Classroom

by
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In 1943 a prominent Danish landscape architect, having designed elaborate playground sites, noticed that children preferred to play elsewhere. Building construction sites, for example, were far more popular than the specially planned environments of experts. Theodore Sorensen became interested and conducted detailed playground experiments which subsequently became a major influence on the development of the American playground movement of the fifties (Frost, 1978). Playgrounds began to reflect the actual play patterns of children rather than the preconceived notions of adults. What we now term the adventure or creative playground is the result of twenty years of research in the areas of motor performance, socialization, playground preferences and styles of adult playground leadership (Wuellner, 1970). These playgrounds have novel forms, textures and different heights arranged aesthetically in an outdoor setting. Manipulative materials such as cardboard boxes, toys, sand and water are provided. The playground components function to answer the child's need to change, create, explore, risk and fantasize (Frost & Klein, 1979). The creative-adventure playground combines the concepts of exploration and creative pursuits and permits children to develop their own ideas of play (Yerkes, 1980).

Until recently, the focus of the playground research has been confined to the area of play activity in the outdoors. What has been missing is an exploration of the possible influence of play participation with creative or adventure playgrounds on the development of school readiness in young children. What has also been missing is the interest of practicing educators in the implications of outdoor play experience for the enhancement of teacher goals.

One question is, can certain playground models function as an effective extension of the classroom?

In the Spring of 1980, researchers at Northern Illinois University's Early Childhood Education Research Laboratory decided to answer that question. With the assistance of Big Toys Northwest Design Products, an outdoor playground structure was designed and constructed. The researchers added building materials, toys, tools, sand and water so that children could change the environment or design their own ideas of play. The adult supervision ensured a safe play experience for each child independent of teacher domination. In all respects the model conformed to the criteria for adventure and creative playgrounds as suggested by current playground research.

The researchers designed a study to examine the effects of playground participation on the development of visual-motor integration in 3-4½ year old preschool boys and girls. Visual-motor integration is fundamental to the level of the child's school readiness. It is recognized as a basic information-processing system and is accepted as a prerequisite for school readiness as evidenced by its systematic use in preschool screening assessments, school readiness tests, remedial programs and current research.

The study used the method; Pretest-Posttest Control Group Design. Thirty-two preschool children, ages 3-4½, were screened for hearing and vision acuity. They were then pretested on the Developmental Test of Visual-Motor Integration and randomly assigned to the experimental or control group within one of four preschool classes held in the Early Childhood Education Research Laboratory. The children attended a two hour session twice per week for six weeks. A minimum of 30 minutes was designated for play experiences during each session. The experimental group participated on the creative-adventure playground, while the control group participated in free play activities in

the research laboratory. The teachers for each group were randomly assigned, given specific instructions for their play environments and monitored by the researchers during the study. At the end of six weeks, the children were post-tested on the Developmental Test of Visual-Motor Integration. Differences between the pre and post-test scores were tested and the null hypotheses were rejected at the .05 level of significance.

The findings have interesting and exciting implications for classroom methods. The playground participation clearly helped children improve their visual-motor integration skills. Both experimental boys and girls, those who did participate on the playground, made a significant gain in their test scores. Among the control group, the boys who did not use the playground showed a significant, though lower, gain than that of the experimental boys. This suggests that although this playground participation increased test scores for boys, their daily experiences may already provide some of this type of activity. In contrast, the control group girls made no significant gain in their test scores. They were the only group in the study who made no gain at all. Creative-adventure playground participation therefore, may be particularly valuable to the physical and mental development of young girls whose opportunities for the development of visual-spatial skills occur less frequently. In addition, adult models are provided who can reinforce the idea that physical exploration and interaction with the outdoor environment is appropriate for both genders.

What are the direct implications of this research for classroom practice and the potential use of the playground as an extension of the classroom? First, the study offers evidence that certain playgrounds may be used by teachers as one type of outdoor resource center which reinforces fundamental learning tasks. Viewed as an extension of the classroom, it capitalizes on the natural mode of children's learning, exploratory behavior. The design itself

combined with the joy of being outdoors, functions to stimulate achievements useful in academic readiness. If children can reliably achieve these skills in such a way, it may help to reduce the indoor dependence on repetitive drill. The teacher has the unique advantage of offering opportunities for both motor skill and academic readiness development in direct experience out-of-doors. Certainly, we can assume that motor exploration is important not only to the achievement of academic readiness, but of continued school success.

During the study, the researchers noted interesting behavioral changes in the children. They became strikingly assertive and imaginative. In effect, they redesigned the playground environment. Step ladders were placed in a variety of positions. Sometimes they became obstacle courses or boundaries for an imaginary house. Cardboard boxes were useful for rolling down grass mounds. Some children attempted to build toys and add to the playground structure with scrap lumber. They rearranged tree stumps and spare tires. They would play "follow the leader", challenging each other or even an adult to do activities. Unlike the traditional playground environment, this playground setting allows children to do things together with a friend or in small groups. The children seemed to enjoy this setting and although not a focus of the study, teachers working with them noted increases in verbal and social skills.

We believe that the findings of this study have particular implications for preschool programs. Teachers can use the creative-adventure playground as an outdoor resource center for teaching school readiness concepts such as visual-motor integration, language development and social skills. Since this playground participation is beneficial for both boys and girls, it should be included in curriculum planning. If a creative-adventure playground is unavailable, teachers might try providing similar play experiences outdoors for their children. They could evaluate their present play environment and, if

needed, make appeals to children, staff and community for playground reconstruction.

For early childhood educators, child's play is a serious endeavor. Children learn from play and what they learn can be enhanced by careful playground design (Coursen, 1974). As Jeannette Stone, a playground advocate, once said, "If we are convinced of the importance of the early years of childhood, we must see outdoor play as a part of the educational process, not simply as a means for letting off steam, amusing oneself or passing time" (Ranzoni, 1970, p.6). The creative-adventure playground provides an environment to accomplish this goal.

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